

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-025171**Date Inspected:** 03-Nov-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai**CWI Name:** Wai Tao**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector R. Hernandez was present during the time noted above and conducted observations relative to the work being performed.

The QA Inspector randomly observed the following work in progress:

Bay Number 1

Performed verification VT for the component(s) and corresponding welds for component on OBG Barrier Rail assembly listed as E5-SB1-028 for the following designated weld number(s): 001~179. This QA inspector signed green tag #15227.

Performed verification VT for the component(s) and corresponding welds for component on OBG Barrier Rail assembly listed as E5-SB1-057 for the following designated weld number(s): 001~179. This QA inspector signed green tag #15227.

Performed verification VT for the component(s) and corresponding welds for component on OBG Barrier Rail assembly listed as E5-SB3AA-001 for the following designated weld number(s): 001~179. This QA inspector signed green tag #15227.

Performed verification VT for the component(s) and corresponding welds for component on OBG Barrier Rail assembly listed as E5-SB1B-003 for the following designated weld number(s): 001~179. This QA inspector signed

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green tag #15227.

Performed verification VT for the component(s) and corresponding welds for component on OBG Barrier Rail assembly listed as E5-SB1C-002 for the following designated weld number(s): 001~179. This QA inspector signed green tag #15227.

Performed verification VT for the component(s) and corresponding welds for component on OBG Barrier Rail assembly listed as E5-SB1C-004 for the following designated weld number(s): 001~179. This QA inspector signed green tag #15227.

Performed verification VT for the component(s) and corresponding welds for component on OBG Barrier Rail assembly listed as E5-SB1C-005 for the following designated weld number(s): 001~179. This QA inspector signed green tag #15227.

### Bay Number 2

Performed verification VT for the component(s) and corresponding welds for component on OBG Barrier Rail assembly listed as E2-SB1D-002 for the following designated weld number(s): 001~179. This QA inspector signed green tag #15230.

Performed verification VT for the component(s) and corresponding welds for component on OBG Barrier Rail assembly listed as E2-SB1D-004 for the following designated weld number(s): 001~179. This QA inspector signed green tag #15230.

Performed verification VT for the component(s) and corresponding welds for component on OBG Barrier Rail assembly listed as E2-SB1D-006 for the following designated weld number(s): 001~179. This QA inspector signed green tag #15230.

Performed verification VT for the component(s) and corresponding welds for component on OBG Barrier Rail assembly listed as E2-SB1D-014 for the following designated weld number(s): 001~179. This QA inspector signed green tag #15230.

Performed verification VT for the component(s) and corresponding welds for component on OBG Barrier Rail assembly listed as E2-SB5-010 for the following designated weld number(s): 001~179. This QA inspector signed green tag #15230.

Performed verification VT for the component(s) and corresponding welds for component on OBG Barrier Rail assembly listed as E2-SB5-015 for the following designated weld number(s): 001~179. This QA inspector signed green tag #15230.

Performed verification VT for the component(s) and corresponding welds for component on OBG Barrier Rail assembly listed as E2-SB7-002 for the following designated weld number(s): 001~179. This QA inspector signed green tag #15230.

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Performed verification VT for the component(s) and corresponding welds for component on OBG Barrier Rail assembly listed as E2-SB1-001 for the following designated weld number(s): 001~179. This QA inspector signed green tag #15230.

Performed verification VT for the component(s) and corresponding welds for component on OBG Barrier Rail assembly listed as E2-SB4A-001 for the following designated weld number(s): 001~179. This QA inspector signed green tag #15230.

Performed verification VT for the component(s) and corresponding welds for component on OBG Barrier Rail assembly listed as E2-SB5A-001 for the following designated weld number(s): 001~179. This QA inspector signed green tag #15230.

Performed verification VT for the component(s) and corresponding welds for component on OBG Barrier Rail assembly listed as E2-SB6-001 for the following designated weld number(s): 001~179. This QA inspector signed green tag #15230.

Performed verification VT for the component(s) and corresponding welds for component on OBG Barrier Rail assembly listed as E2-SB1C-004 for the following designated weld number(s): 001~179. This QA inspector signed green tag #15230.

Performed verification VT for the component(s) and corresponding welds for component on OBG Barrier Rail assembly listed as E2-SB2-002 for the following designated weld number(s): 001~179. This QA inspector signed green tag #15230.

FCAW welding of complete joint penetration and partial penetration weld joint(s) located on lift 14 OBG anchorage plate assembly identified as AP3032-001 weld number(s) 860 & 861. Welder is identified as welder no. 069712. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-B-T-2333-TC-P4-F and WPS-B-T-2233-TC-U4b-F.

FCAW welding of complete joint penetration and partial penetration weld joint(s) located on lift 14 OBG anchorage plate assembly identified as AP3032-001 weld number(s) 573 & 574. Welder is identified as welder no. 045227. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-B-T-2333-TC-P4-F and WPS-B-T-2233-TC-U4b-F.

FCAW welding of complete joint penetration and partial penetration weld joint(s) located on lift 14 OBG anchorage plate assembly identified as AP3032-001 weld number(s) 438 & 439. Welder is identified as welder no. 066673. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-B-T-2333-TC-P4-F and WPS-B-T-2233-TC-U4b-F.

FCAW welding of complete joint penetration and partial penetration weld joint(s) located on lift 14 OBG anchorage plate assembly identified as AP3032-001 weld number(s) 748 & 749. Welder is identified as welder no. 201583. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-B-T-2333-TC-P4-F and WPS-B-T-2233-TC-U4b-F.

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FCAW welding of complete joint penetration and partial penetration weld joint(s) located on lift 14 OBG anchorage plate assembly identified as AP3032-001 weld number(s) 892 & 893. Welder is identified as welder no. 066236. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-B-T-2333-TC-P4-F and WPS-B-T-2233-TC-U4b-F.

FCAW welding of complete joint penetration and partial penetration weld joint(s) located on lift 14 OBG anchorage plate assembly identified as AP3032-001 weld number(s) 828 & 829. Welder is identified as welder no. 048696. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-B-T-2333-TC-P4-F and WPS-B-T-2233-TC-U4b-F.

FCAW welding of complete joint penetration and partial penetration weld joint(s) located on lift 14 OBG anchorage plate assembly identified as AP3032-001 weld number(s) 620 & 621. Welder is identified as welder no. 068852. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-B-T-2333-TC-P4-F and WPS-B-T-2233-TC-U4b-F.

FCAW welding of complete joint penetration and partial penetration weld joint(s) located on lift 14 OBG anchorage plate assembly identified as AP3032-001 weld number(s) 377 & 378. Welder is identified as welder no. 062708. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-13-P-2333-TC-P4-F and WPS-B-T-2233-TC-U4b-F.

FCAW welding of complete joint penetration weld joint(s) located on lift 14 OBG Sub Assembly component identified as SA3446-001 weld number(s) 001. Welder is identified as welder no. 045265. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-B-T-2221-B-L2c-S-2.

FCAW welding of partial penetration groove weld joint(s) located on lift 14 OBG Edge Beam component identified as EB3054-001 weld number(s) 001. Welder is identified as welder no. 045276. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-B-T-2231-TC-P4-F.

FCAW welding of partial penetration groove weld joint(s) located on lift 14 OBG Edge Beam component identified as EB3054-001 weld number(s) 005. Welder is identified as welder no. 045203. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-B-T-2231-TC-P4-F.

FCAW welding of partial penetration groove weld joint(s) located on lift 14 OBG Edge Beam component identified as EB3054-002 weld number(s) 005. Welder is identified as welder no. 201583. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-B-T-2231-TC-P4-F.

Bay Number 3

This QA inspector assisted in the performance MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel, by the lot method testing procedure. This QA Inspector assisted in

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the generation an MT report for this date by inspector lot no. All components were as listed on NWIT notification no. 07222. The member(s) is/are identified as OBG Barrier Rails and Floor Beams. The weld designations reviewed are as follows:

1. FB3278-001-002, 003, 013, 014, 025~028.
2. FB3284-001-003, 005, 006, 009~012, 021~024.
3. FB3264-001-002, 003.
4. FB3269-001-007, 008, 011~014.
5. FB3268-001-024 & 025.

Performed verification VT for the component(s) and corresponding welds for component on OBG Longitudinal Diaphragm component listed as LD3042-001 for the following designated weld number(s): 001~007, 010, 011, 014~017, 020~025, & 028~037. This QA inspector signed green tag #15225.

FCAW welding of complete joint penetration weld joint(s) located on lift 14 OBG Longitudinal Diaphragm component identified as LD3040-001 weld number(s) 035 & 041. Welder is identified as welder no. 206623. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-B-T-2232-TC-U4b-F.

FCAW welding of complete joint penetration weld joint(s) located on lift 14 OBG Floor Beam component identified as FB3286-001 weld number(s) 260. Welder is identified as welder no. 055491. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-B-T-2233-TC-U4c-F.

FCAW welding of complete joint penetration weld joint(s) located on lift 14 OBG Floor Beam component identified as FB3286-001 weld number(s) 259 & 225. Welder is identified as welder no. 044830. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-B-T-2233-TC-U4c-F.

FCAW welding of complete joint penetration weld joint(s) located on lift 14 OBG Floor Beam component identified as FB3286-001 weld number(s) 234. Welder is identified as welder no. 050242. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-B-T-2233-TC-U4c-F.

FCAW welding of complete joint penetration weld joint(s) located on lift 14 OBG Floor Beam component identified as FB3286-001 weld number(s) 235. Welder is identified as welder no. 052696. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-B-T-2233-TC-U4c-F.

FCAW welding of complete joint penetration weld joint(s) located on lift 14 OBG Floor Beam component identified as FB3286-001 weld number(s) 239. Welder is identified as welder no. 067876. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-B-T-2233-TC-U4c-F.

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FCAW welding of complete joint penetration weld joint(s) located on lift 14 OBG Floor Beam component identified as FB3286-001 weld number(s) 252. Welder is identified as welder no. 065036. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-B-T-2233-TC-U4c-F.

FCAW welding of complete joint penetration weld joint(s) located on lift 14 OBG Floor Beam component identified as FB3286-001 weld number(s) 286. Welder is identified as welder no. 067949. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-B-T-2233-TC-U4c-F.

Bay Number 4

FCAW welding of fillet weld joint(s) located on lift 14 OBG sub assembly identified as SA3361-001 weld number(s) 003, 005, 007, & 009. Welder is identified as welder no. 217805. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-B-T-2132-3.

Unless otherwise noted above all items observed on this day appeared to be in general compliance with the applicable contract documents

### Summary of Conversations:

Pertinent conversations are included in the body of the report.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 1500-0042-02372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Hernandez,Rene	Quality Assurance Inspector
<b>Reviewed By:</b>	Hall,Steven	QA Reviewer

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